

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: David B. Melvin : Art Unit:
Serial No.: To Be Assigned : Examiner:
Filed: Herewith :
For: DEVICE AND METHOD FOR :
RESTRUCTURING HEART :
CHAMBER GEOMETRY :

CONTINUATION APPLICATION OF:

Applicant: David B. Melvin : Art Unit: 3738
Serial No.: 09/326,416 : Examiner: D. Isabella
Filed: June 4, 1999 :
For: DEVICE AND METHOD FOR :
RESTRUCTURING HEART :
CHAMBER GEOMETRY :

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

S I R :

Prior to examination, please amend the above-identified application as follows:

IN THE SPECIFICATION:

Enclosed is a substitute specification. No new matter has been added.

IN THE CLAIMS:

Please cancel claims 1-26 and add claims 27-57 as follows:

1 27. (Newly Added) A device for treating a heart by
2 deforming one and only one chamber of the heart, said device comprising:

3 a first member configured to be positioned adjacent an exterior
4 surface of said chamber and to selectively deform said chamber by applying
5 pressure to said chamber, and

6 a second member coupled to said first member, wherein said
7 second member is configured to restrict free movement of said chamber and
8 to provide resistance against the pressure applied by said first member to said
9 chamber.

1 28 (Newly Added) The device according to claim 27,
2 wherein said second member includes a portion configured to be disposed
3 within an interior volume of the heart.

1 29. (Newly Added) The device according to claim 27,
2 wherein said second member includes a splint.

1 30. (Newly Added) The device according to claim 27,
2 wherein said second member includes elongate elements penetrating a wall of
3 the heart.

1 31. (Newly Added) A method of treating a diseased
2 heart by deforming one and only one chamber of the heart, said chamber
3 having an outer wall, said method comprising the steps of:

4 providing a device having a first member configured to overlie
5 a first portion of said outer wall of said chamber and a second member
6 attached to said first member, said second member configured to engage a
7 second portion of said outer wall of said chamber, and

8 causing said first member to press inwardly on said outer wall
9 to form an indentation in said outer wall, while said second member restricts
10 free movement of said chamber and resists the pressure applied by said first
11 member to said chamber.

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1 32. (Newly Added) The method of claim 31, wherein a
2 plurality of first members are attached to said second member and each of
3 said plurality of first members is configured to press inwardly on different
4 selected portions of an outer wall of one chamber of said heart, each forming
5 indentations in said wall and reducing the volume of said chamber.

1 33. (Newly Added) The method of claim 32, wherein
2 said plurality of first members include portions configured to press inwardly
3 on opposing portions of said outer wall of one chamber of said heart, each
4 forming indentations in said wall and reducing the volume of said chamber.

1 34. (Newly Added) A device for use in treating the
2 natural heart comprising:

3 an internal splint, sized and configured for placement in an
4 interior volume of the natural heart, and

5 external members configured for placement on an exterior
6 surface of the heart, said external members connected to said splint and
7 configured to restrict free movement of the natural heart and to deform
8 selected portions of a wall of one chamber of the heart by pressing inwardly
9 on the chamber.

1 35. (Newly Added) The device according to claim 34,
2 wherein said splint is held in a stable position within the interior volume of
3 the natural heart by connection to said external members.

1 36. (Newly Added) A method for treating a diseased
2 heart comprising the steps:

3 placing an internal splint within the interior volume of a natural
4 heart;

5 placing an external device on an external surface of one chamber
6 of the heart;

7 connecting the internal splint to the external device, said
8 external device configured to restrict free movement of the natural heart and
9 to deform the chamber by causing said external device to press inwardly on
10 the chamber.

1 37. (Newly Added) A device for treating a diseased heart
2 by deforming one and only one chamber of the heart, said device comprising:

3 an elongate first member configured to be positioned adjacent
4 said chamber along a line encircling a portion of an exterior surface of said
5 chamber and to selectively deform said chamber by applying inward pressure
6 to said chamber along a limited segment of said line; and

7 a second member coupled to said first member, wherein said
8 second member is configured to be positioned adjacent a portion of an
9 exterior surface of said chamber substantially opposite said first member to
10 provide resistance against the pressure applied by said first member to said
11 chamber.

1 38. (Newly Added) The device according to claim 37,
2 wherein said limited segment comprises at least fifty percent of a longitudinal
3 length of said chamber.

1 39. (Newly Added) The device of claim 37 further
2 comprising an internal splint, sized and configured for placement in an
3 interior volume of the heart and coupled to said first and second members.

1 40. (Newly Added) The device according to claim 39,
2 wherein said splint is held in a stable position within the interior volume of
3 the heart by connection to said external members.

1 41. (Newly Added) A device for use in treating a natural
2 heart comprising:

3 at least two opposing members configured to be positioned
4 adjacent portions of an external wall of a chamber of said natural heart and
5 adapted to apply an indentation against at least one point on said external
6 wall; and

7 a connecting structure adapted to connect and restrain said
8 members in a position indenting at least one point on said external wall.

1 42. (Newly Added) The device of claim 41, wherein said
2 connecting structure includes a portion configured to be disposed within an
3 interior volume of the natural heart.

1 43. (Newly Added) The device of claim 41, wherein said
2 connecting structure includes a splint.

1 44. (Newly Added) The device of claim 41, wherein said
2 connecting structure includes elongate elements penetrating a wall of the
3 natural heart.

1 45. (Newly Added) A device for use in treating a natural
2 heart comprising:

3 At least two opposing external members configured to be
4 positioned adjacent portions of an external surface of a wall of a chamber of
5 said heart and adapted to indent said portions; and

6 An internal member configured for placement in an interior
7 volume of said chamber and to be connected to said external members.

1 46. (Newly Added) The device according to claim 45,
2 wherein said portions are elongated, comprising at least fifty percent of a
3 longitudinal length of said chamber.

1 47. (Newly Added) The device according to claim 45,
2 wherein said portions are disposed along a curve encircling a portion of an
3 exterior surface of said chamber and said opposing external members
4 selectively deform said chamber by applying inward pressure to indent said
5 chamber along a limited segment of said curve.

1 48. (Newly Added) A device for treating a natural heart,
2 comprising:

3 at least two opposing members disposed adjacent portions of an
4 exterior surface of a chamber of said heart, said portions generally disposed
5 along segments of a single curve encircling said chamber; and

6 a connecting structure connecting and restraining said members
7 to selectively indent said portions.

1 49. (Newly Added) The device of claim 48, wherein said
2 connecting structure includes a portion configured to be disposed within an
3 interior volume of the natural heart.

1 50. (Newly Added) The device of claim 48, wherein said
2 connecting structure includes a splint.

1 51. (Newly Added) The device of claim 48, wherein said
2 connecting structure includes elongate elements penetrating a wall of the
3 natural heart.

1 52. (Newly Added) A device for changing the shape of a
2 natural heart, comprising:

3 at least one first element configured to be disposed adjacent an
4 outer surface of a chamber of the natural heart, and to apply pressure to a
5 selected portion of the wall of said chamber; and

6 at least one second element connected to said first element and
7 configured to hold said device in contact with said chamber wall.

1 53. (Newly Added) The device of claim 52, wherein said
2 first member comprises a surface adapted to provide equalized pressure over
3 irregularities in said outer surface.

1 54. (Newly Added) The device of claim 52, wherein
2 alignment of said first member is maintained by a cord that penetrates the
3 walls of the natural heart.

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1 55. (Newly Added) A device for treating a natural heart,
2 comprising:

3 a first member configured to be positioned immediately adjacent
4 a portion of an epicardial surface of the natural heart to restrict free motion
5 of the heart; and

6 a second member configured to apply a force to indent the
7 exterior wall of the heart.

1 56. (Newly Added) The device of claim 55, wherein at
2 least one of said first and second members comprise a surface adapted to
3 provide equalized pressure over irregularities in an epicardial surface.

1 57. (Newly Added) The device of claim 55, wherein
2 alignment of at least one of said first and second members is maintained by a
3 cord that penetrates the walls of the natural heart.

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REMARKS

The applicant offers the following remarks summarizing and explaining the amendments provided above.

A. In the Specification

Although they make no substantive changes, the amendments to the specification are submitted to conform this case to the formal requirements and long-established formal standards of U.S. Patent and Trademark Office practice, and to provide improved idiom and better grammatical form. The applicant believes that the substitute specification will facilitate processing of the application in accordance with 37 C.F.R. § 1.52 (a and b). Also enclosed is a marked-up copy which shows the portions of the original specification which are being added and deleted.

B. In the Claims

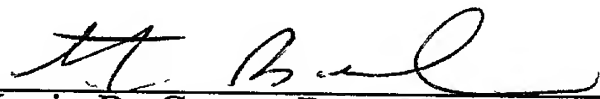
Pending claims 1-26 have been cancelled. Claims 27-57 have been added. The added claims are drawn to various embodiments of a device supported in U.S. Patent Application No. 08/581,914, filed on January 2, 1996 priority of which is claimed in the subject application.

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C. Conclusion

By this preliminary amendment, the specification has been placed in better condition for examination. Claims 27-57 have been added to permit the applicant to pursue these claims. These claims are fully supported by the specification. No new matter has been added. Entry of this preliminary amendment is respectfully requested.

Respectfully Submitted,
RATNER & PRESTIA



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Dated: January 22, 2002

Enclosures: Version with markings to show changes made;
Specification (with and without revision marks)

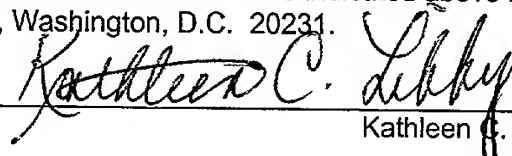
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The Assistant Commissioner for Patents is
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Kathleen C. Libby

VERSION WITH MARKINGS TO SHOW CHANGES MADE**IN THE SPECIFICATION:**

Enclosed is a substitute specification with revision marks showing changes made to the original specification. Also enclosed is a clean substitute specification with the revisions accepted.

IN THE CLAIMS:

Claims 1-26 have been cancelled, and claims 27-57 have been added.

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